California's Green Innovations Challenge Grant and the SolarTech SWIC Response

SolarTech's, NOVA's and FootHill-DeAnza CCD's SWIC proposal:

SolarTech Workforce Innovations Collaborative

SolarTech Consortium

July 1, 2010, June 30, 2012

SolarTech
An initiative of Silicon Valley Leadership Group

Agenda

- Who are we?
- What is our mission?
- Where are We?
- How do we achieve results?
- What have we accomplished?

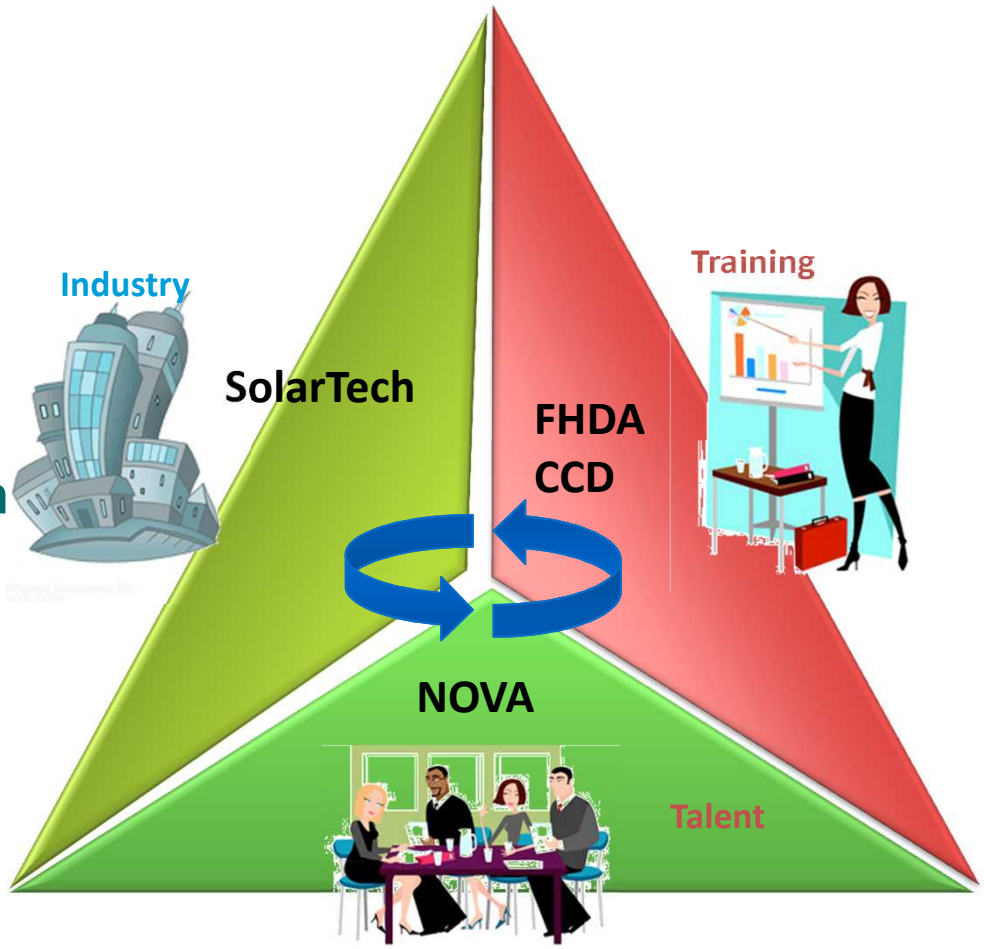
SolarTech
An initiative of Silicon Valley Leadership Group

SolarTech Workforce Innovations Collaborative: SWIC

Program/Team Structure & Key Elements

SolarTech:

- **Industry Association**
- **100+ Members**
- **Representing some of the largest solar players world wide.**



SolarTech
An initiative of Silicon Valley Leadership Group

SWIC's Bottom-Line Goal

Find the right renewable energy jobs in the right timeframe,

with enough granular skill requirement details,

such that training providers can develop the right programs,

and talent coaches can work with displaced workers to fill these positions,

- **Successfully placing 172 individuals**
- **Sooner than later.**
- **Experiment and figure out the best model.**

SolarTech Standards and Best practices. Long term goal: Local Pilot shared throughout State and Nationally Through IREC and DOE

SolarTech Workforce Innovations Collaborative, Placement Goals:

- **Grant Targets**
  - 245 participants that will receive training
  - 172 participants that will complete training and enter unsubsidized employment in the targeted industry
- We industry help, ideas and guidance.
- We need to leverage multiple business and partner channels?

SolarTech
An initiative of Silicon Valley Leadership Group

Target Demographic and Student Profiles

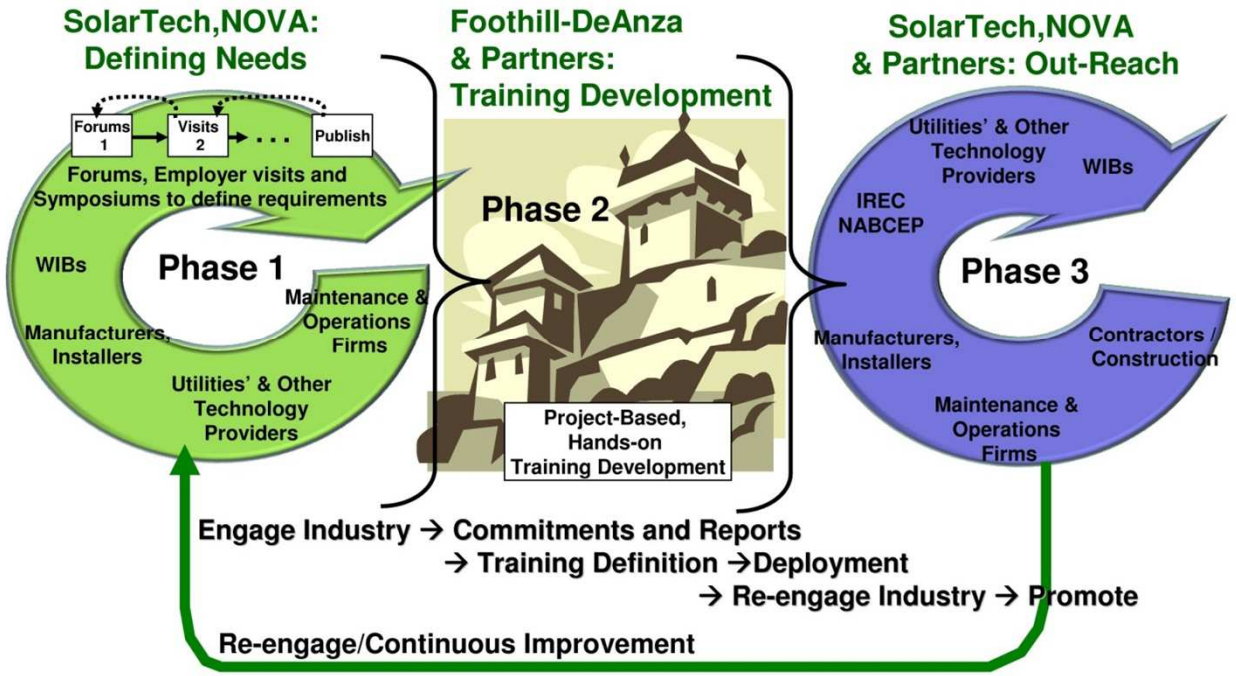
Displaced Workers/Student Profiles:

- All senior level professionals recently excessed from multiple different high tech industries.
- Most have previous high tech experience in product support, business development, project management, and/or have run their own business.
- Most have multiple undergraduate and graduate degrees, and a few are Ph.D. level.
- All are enrolled in Nova and can be researched in the Linked-in group established for this purpose:

  "SWIC Placement Group"

SolarTech
An initiative of Silicon Valley Leadership Group

SolarTech's Role



Investigation

- **Engage Industry through a variety of techniques**
- **Not dependent on any one technique**
- **Analysis: Connecting the dots and continuous validation**

Dissemination & Outreach

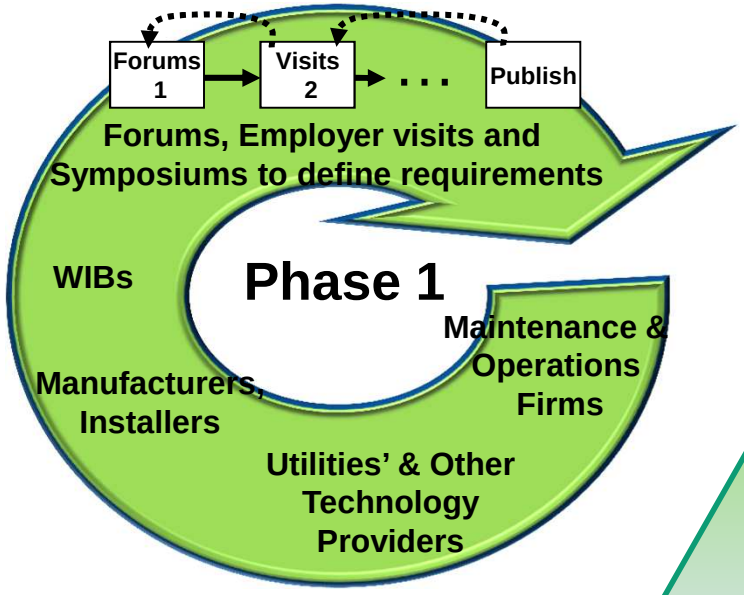
- **Engage Industry through a variety of techniques**
- **Not dependent on any one communication technique**
- **Creating a shared ownership and engagement**

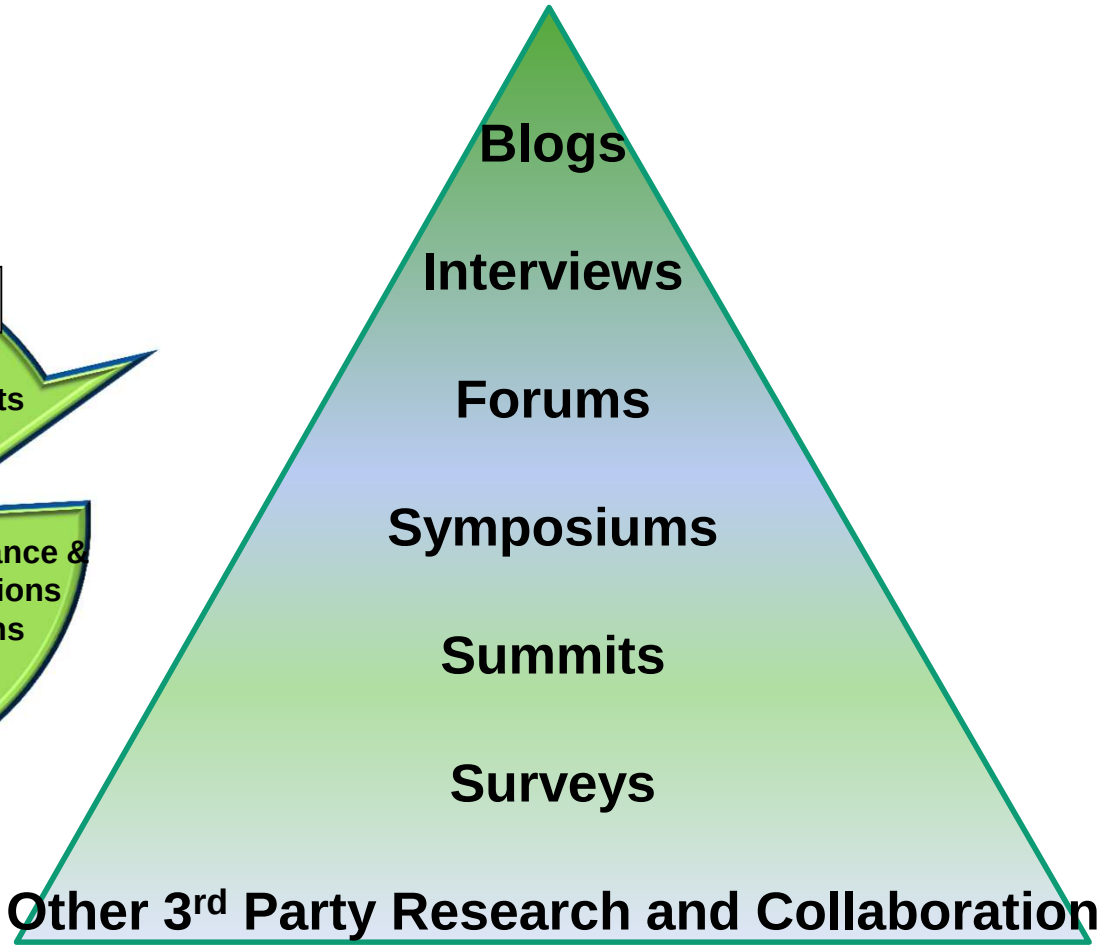
Often the same or similar process

SolarTech
An initiative of Silicon Valley Leadership Group

Multi-Level Data Gathering & Analysis

SolarTech, NOVA: Defining Needs





SolarTech
An initiative of Silicon Valley Leadership Group

Upcoming Symposium

How can you get past the hype and find the truth about cleantech industry labor/market data from primary sources?

….from the SWIC Renewable Energy Workforce Forums!
Join SolarTech and the SWIC team this <u>February 1</u> for…

Integrated Energy Career Pathways

An Insiders Look into Careers and in Integrated Supply and Demand Side Energy Management

The big utilities are moving towards integrated energy supply and demand side management and will be hiring hundreds to meet their program goals!

SolarTech interviews solar industry professionals to mine key labor market data in a roundtable format.

SolarTech
An initiative of Silicon Valley Leadership Group

Implementation & Results

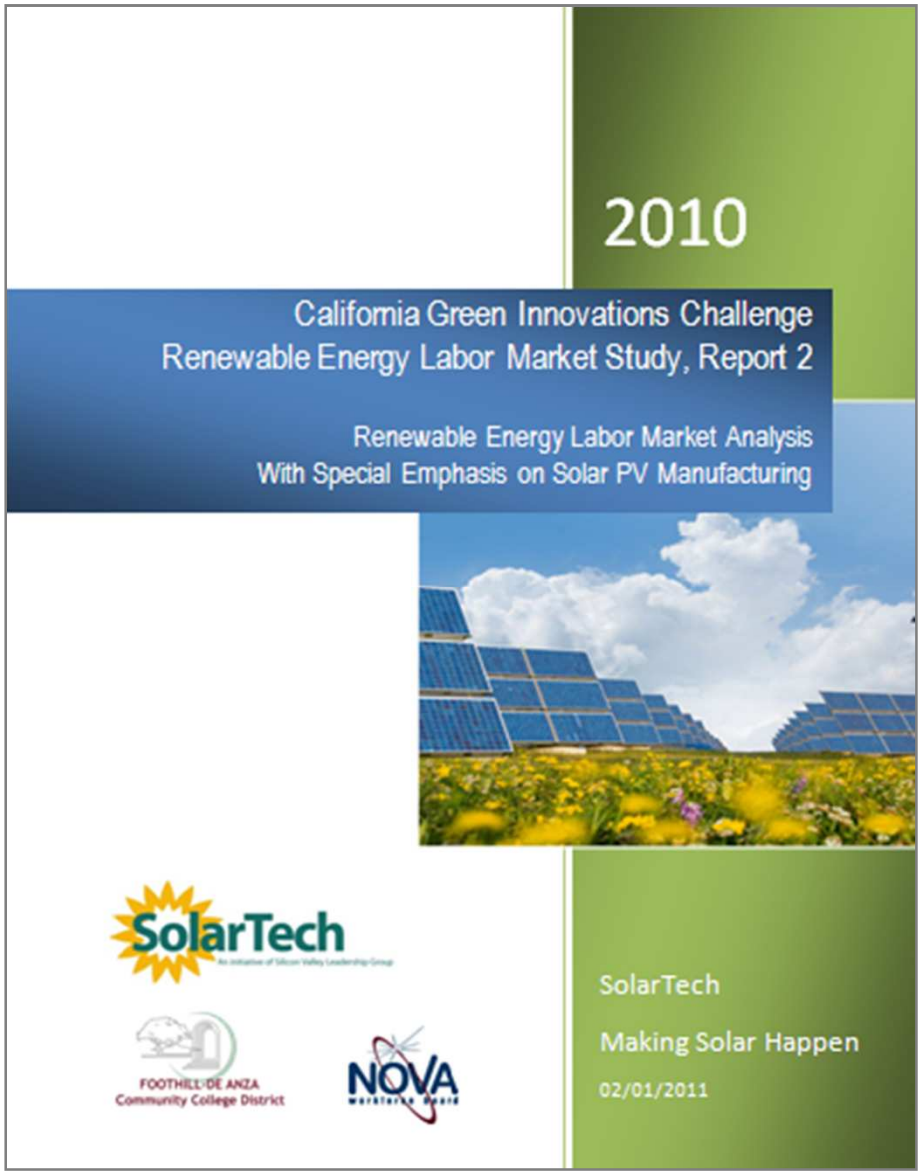
New SolarTech Report

Renewable Energy Labor Market Study

- 1st SolarTech Renewable Energy Labor Market Analysis of a series
- Output from last SolarTech Renewable Energy Workforce Forum, October 2010
- Special emphasis on solar PV sales professionals
- Presents industry analysis of job growth, hiring trends for solar integrators
- Includes national & regional data
- Download: www.solartech.org

Soon to be Released

An in-depth local labor market examination based on both primary and secondary research.



SolarTech
An initiative of Silicon Valley Leadership Group

Leading to Initial Training Offerings

Class Profiles and Opportunities

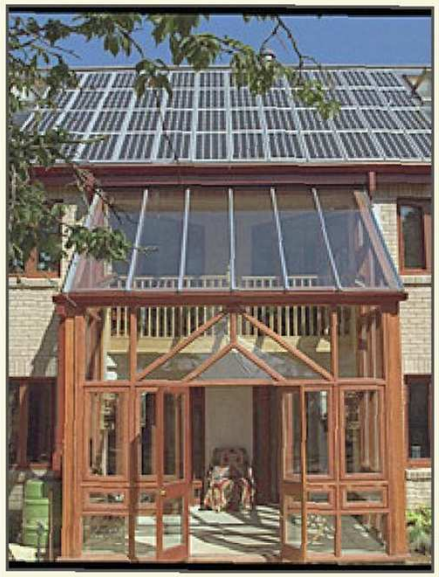
- FootHill Engineering 600: Broad overview of both Energy and Renewable Energy industry; comprehensive and in-depth.
- Solar Technical Sales and Proposal Development: Comprehensive study of the solar PV industry from a sales prospective and elements of a well prepared proposal.
- The above prepares a candidate (with other previous high tech industry experience) for residential solar sales, channel support, back-end support (rebate, permitting and operations), and other business 2 business relationships.
- Investigate next school deployment opportunities

SolarTech
An initiative of Silicon Valley Leadership Group

Implementation & Results

SOLAR SALES

TRAINING



IS SOLAR SALES RIGHT FOR YOU?

- Do you have a proven track record in sales and are interested in work in the solar industry?
- Do you want to be a part of the CleanTech revolution?

Find out if you are eligible for training in Solar Energy at NO COST to you.

SELF-ASSESSMENT

Do you have a proven sales track record and are interested in working in the Solar Industry? Complete this self-assessment to see if it is right for you.

- ☐ I have at least 2-5 years experience in sales prospecting, negotiation, and closing.
- ☐ I have a passionate interest in solar and the energy field.
- ☐ I have a Bachelor's from a 4-year college or equivalent work experience.
- ☐ I am analytical and have the ability to perform mathematical calculations, including trigonometry (calculations for ROI, sun angles, and financial rebates).
- ☐ I can demonstrate that I am self-motivated and extremely goal-oriented, have a love-to-sell-attitude, and the ability to close.
- ☐ I have the ability to understand electrical systems (AC/DC, voltage, output).
- ☐ I am comfortable on a roof and pitches and do not have a fear of heights.
- ☐ I possess strong presentations skills with excellence in oral and written communication.
- ☐ I have strong problem-solving skills and the ability to communicate a product's value proposition.
- ☐ I am willing to work inside the office, travel to customer sites at variable hours, and have a valid driver's license.
- ☐ I am proficient with MS Office applications. Experience with Client Relations Databases (ex. Salesforce) or design programs (ex. Sketchup) a plus.

Take your COMPLETED self-assessment with you to see a NOVA Career Advisor.

For questions, contact: Kim Le, kle@novaworks.org or 408-730-7648

HOW TO GET STARTED

If you are already a CONNECT! member: complete the "Self-Assessment" to the left and make an appointment to discuss your options with a NOVA career advisor.

If you are NOT already a CONNECT! member: follow the steps below and get started.

Steps to get started on Solar Sales Training

Step 1:
- ATTEND CONNECT! ORIENTATION (20 MIN)
- MONDAY-FRIDAY 8:30, 9:15, 10:15, 11:15, 1:15, 2:15, 3:15, 4:00

Step 2:
- COMPLETE REGISTRATION (25 MIN)
- BRING RIGHT-TO-WORK DOCUMENTS
  - DRIVER'S LICENSE AND SOCIAL SECURITY CARD OR US PASSPORT
  - PERMANENT RESIDENT CARD

Step 3:
- "WELCOME" APPOINTMENT WITH CAREER ADVISOR TO DISCUSS IF SOLAR SALES TRAINING IS RIGHT FOR YOU. (45 MIN)

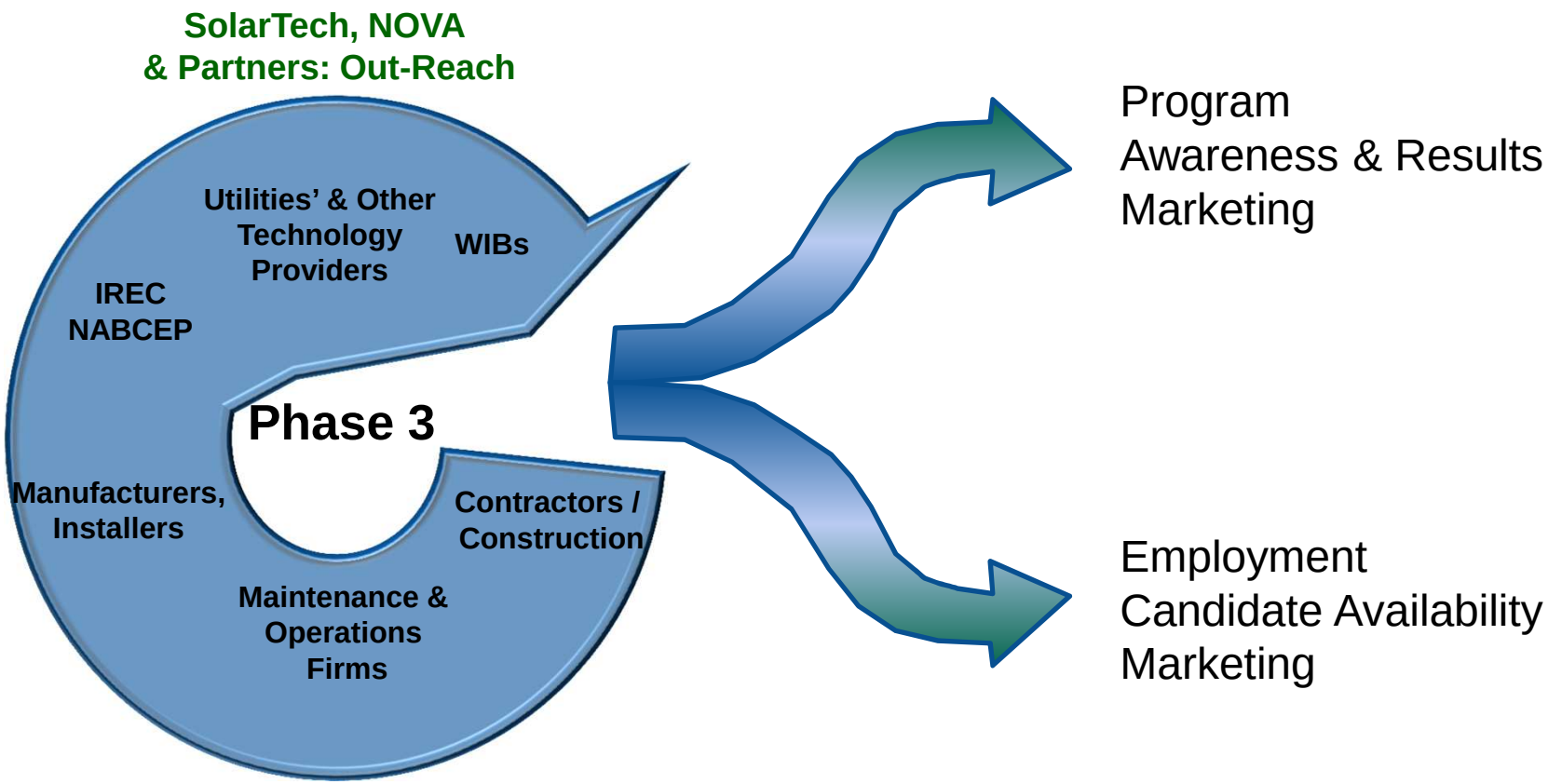
Step 4:
- ATTEND CAREER EXPLORATION WORKSHOP
- IF SOLAR SALES IS RIGHT FOR YOU, MEET WITH A TRAINING ADVISOR.

Step 5:
- ATTEND SOLAR SALES TRAINING AT NO COST TO YOU.

NOVA at the **CONNECT! Job Seeker Center**,
420 S. Pastoria Ave.,
Sunnyvale, CA 94086

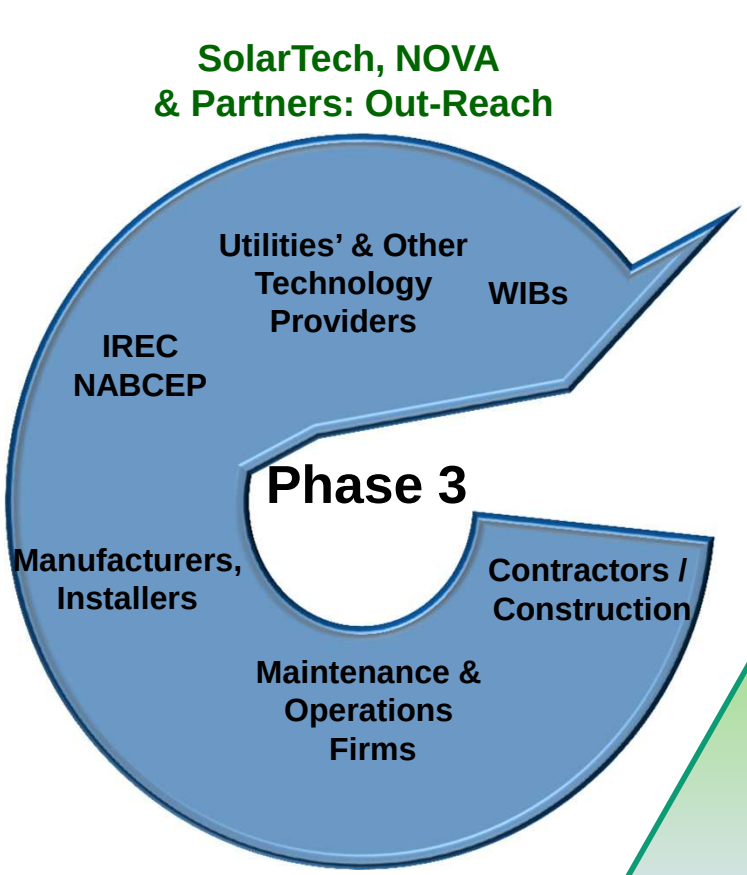
An equal opportunity program. Auxiliary aids and services available upon request to individuals with disabilities.

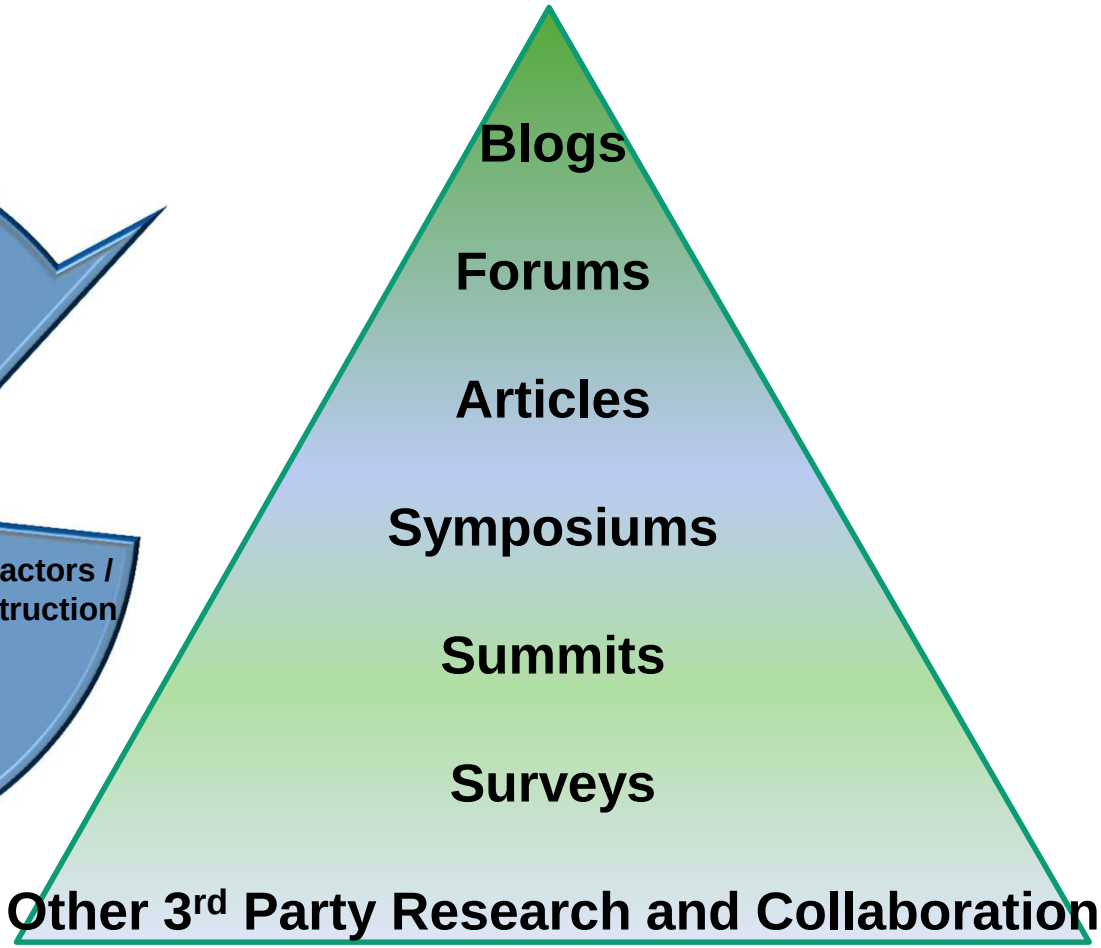
SolarTech's Outreach Role



SolarTech
An initiative of Silicon Valley Leadership Group

Program Awareness and Results Marketing

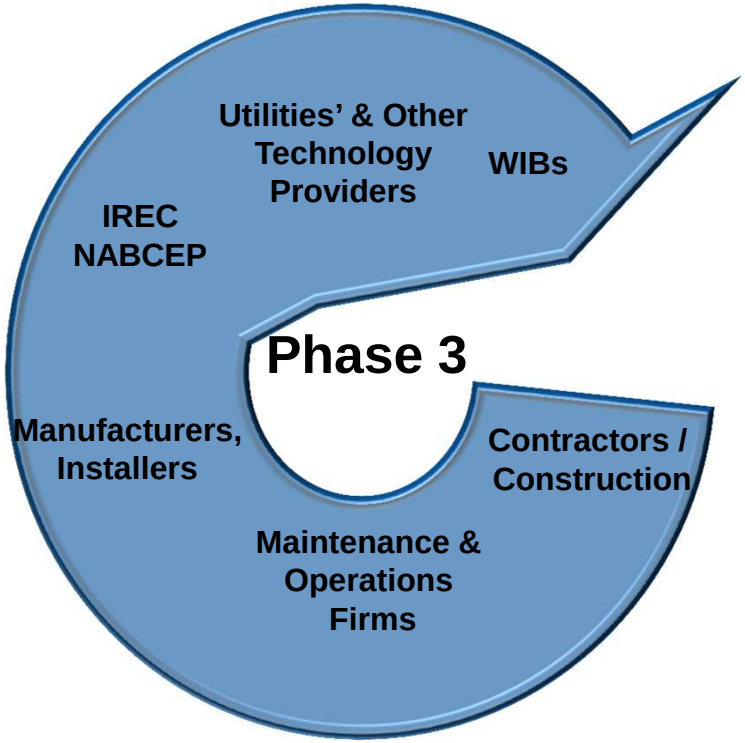




SolarTech
An initiative of Silicon Valley Leadership Group

Employment Candidate and Availability Marketing

SolarTech, NOVA & Partners: Out-Reach

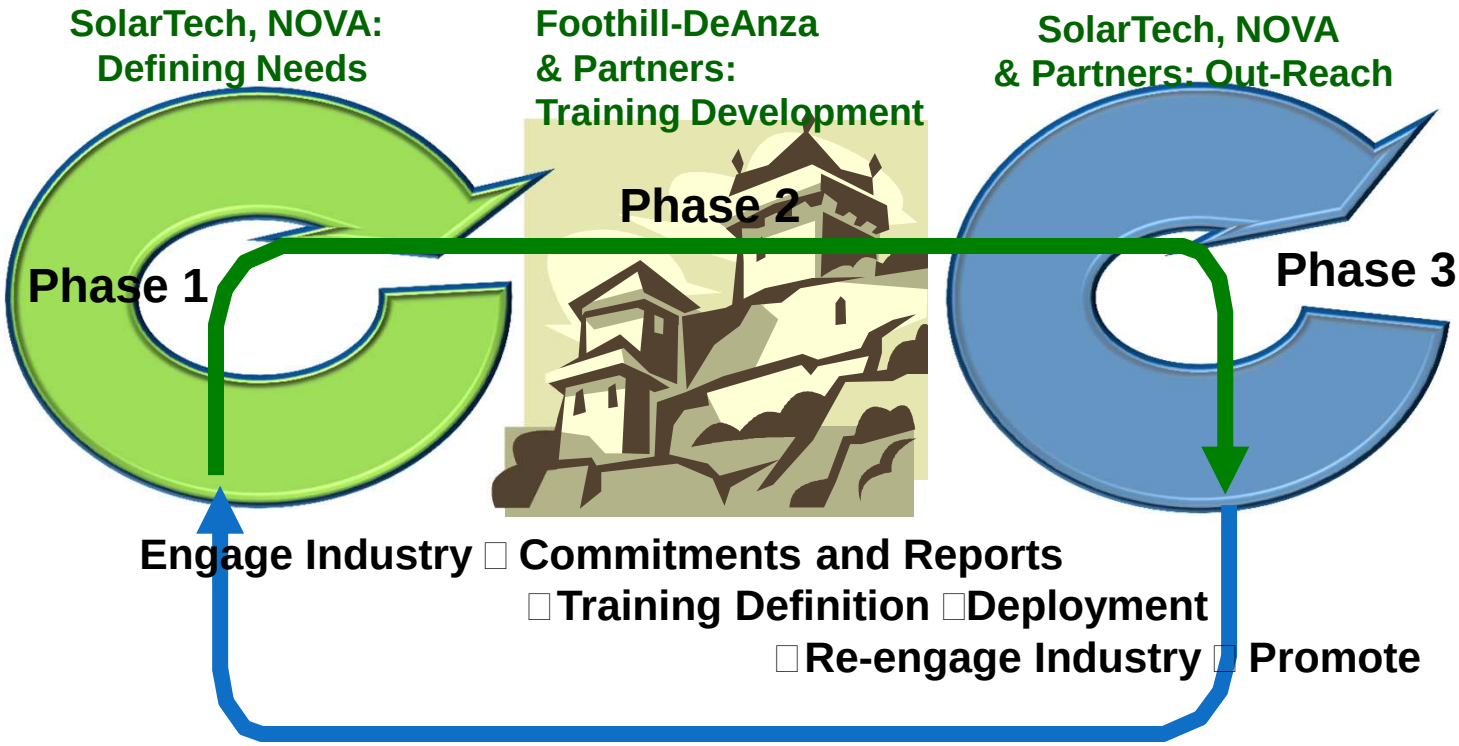


SolarTech's Industry linkage and relationship role places it in a position to engage industry and define effective placement strategies to successfully place trained students into relevant renewable energy positions.

Building/Leveraging Channels to Employment

SolarTech
An initiative of Silicon Valley Leadership Group

Not a Single-Cycle Event



Re-engage/Continuous Improvement

- Re Engage Industry
- Continuous Analysis and Information updates to Education and WIB community
- Continuous Analysis and asking the tough questions of industry leaders

SolarTech
An initiative of Silicon Valley Leadership Group

Multiple Layers, Multiple Channels, Frequent

Multiple Data Source Channels Tapping Into Industry And Members

Workforce Committee

Surveys

Blogs

Industry Reports

Forums

Analysis

Distilling of Recommendations

Blogs

Reports

Seminars

Webinars

Multiple Communication Channels To Industry And Members

SolarTech
An initiative of Silicon Valley Leadership Group

Successes to Date

- Interviews: 20 + employers
- Reports: First major work released Dec 15th
- Forums: 2 forums covering Sales, manufacturing and advanced engineering
- Symposiums: Upcoming in partnership with PG&E focused on IDSM and Convergence.
- Training Programs Deployed (FHDA):
  - 12 week overview of the energy and renewable energy industry
  - Solar PV Technical Sales and Proposal Development
- Training Programs under Development
  - Working with Ohlone and Cabrillo to broaden deployment of above
  - Advanced Solar PV Engineering
  - Solar and renewable energy financial analysis

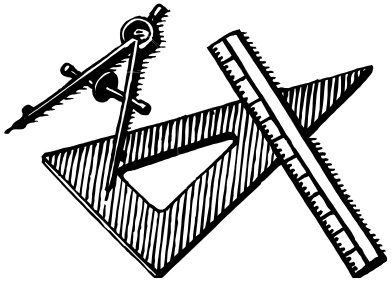
SolarTech
An initiative of Silicon Valley Leadership Group

Nova Workforce Board Role

- Case management
- Screening and coaching
- Tactical/individual placement assistance versus SolarTech broader strategic outreach role.
- Establish tools enabling individual HR engagement: Linked-in group for example.

SolarTech
An initiative of Silicon Valley Leadership Group

Future Training Programs Under Consideration



- Advanced Solar PV Engineering Course targeting > 50MW Commercial Systems.
- Various NABCEP Certification Prep Classes
- Financial Analysis for Solar and multiple renewable energy technologies: Analysis, financing and proposal packaging.

- Internship programs for older professionals and college students to build experience in order to break the glass employment barrier.

SolarTech
An initiative of Silicon Valley Leadership Group

Knowledge and Skills Needed for Solar System Design Engineering

- Experience in constructing or designing Solar PV projects; commercial design experience is preferred.
- Bachelor of Science degree in Engineering, preferably Electrical Engineering, or related field.
- Knowledge of National Electric Code and other codes and standards.
- Proficient with AutoCAD or drafting software. Familiar w/ Google Earth and Google Sketch Up.
- Knowledge of construction techniques.
- Proficient in Microsoft Word, Excel and Outlook.
- Understanding and working experience with solar project design elements including: PV Modules, racking or tracking systems.
- Attention to detail; organizational skills; ability to prioritize and manage multiple projects in fast-paced environments.
- Ability to communicate effectively with both technical and non-technical individuals.
- Good judgment and analytical skills; effective written and oral communication.

Solar System Design Engineer

Occupational Overview

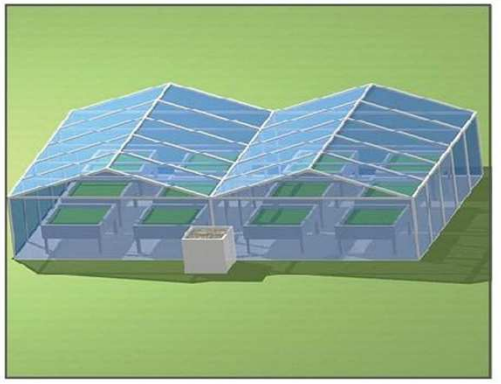
Solar Photovoltaic Commercial System Design Engineers are responsible for supporting photovoltaic projects and working on multi-faceted commercial projects that include rooftop and ground-mounted, fixed tilt and tracking systems. Engineers with skills sets in Solar PV System Design can be employed by Solar Integrators working on commercial projects, Utilities, Engineering Consulting Firms established in the Solar Industry, or in an Engineering Firm that is growing in renewable technology.

A typical day can involve:

- Performing engineering site visits including site survey, sizing and selection.
- Researching and application of local and national code requirements in project jurisdictions.
- Developing detailed drawings of system components for construction and installation.
- Drafting system plans.
- Completing electrical and structural designs for photovoltaic projects.
- Creating project bills of material.
- Coordinating project design reviews.
- Oversee preparation of documentation for construction teams.
- Interfacing with Sales department, external clients, engineers, construction teams, designers and project managers.
- Traveling to client and remote sites.

Expected Earnings

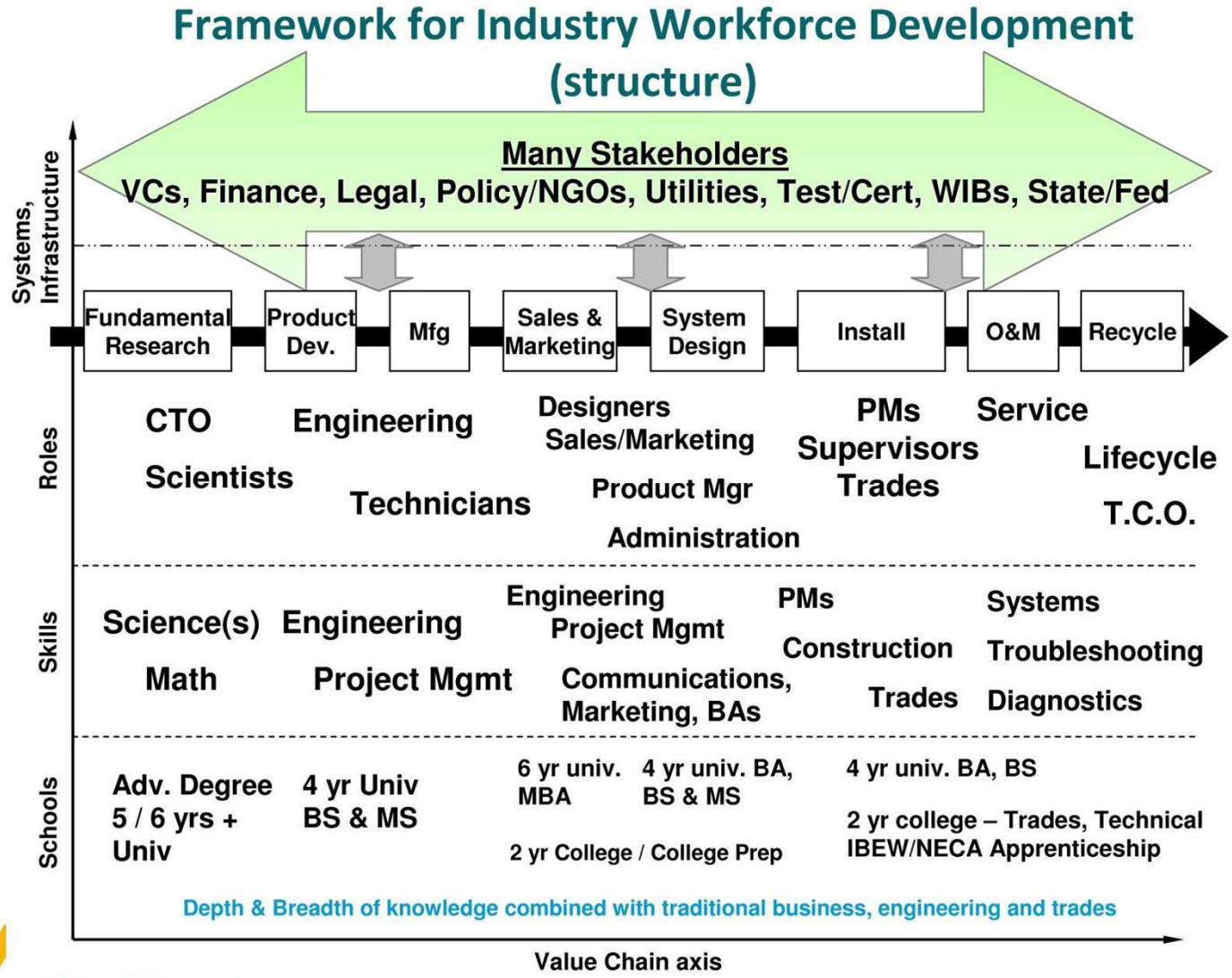
Range of $45 - 80k starting in San Jose area. (from salary.com) plus benefits package (paid time off, medical, dental, vision and 401K).
Professional Engineer (PE) license, Engineer in Training (EIT), or ability to obtain is a plus and could increase salary.



Training Course Information

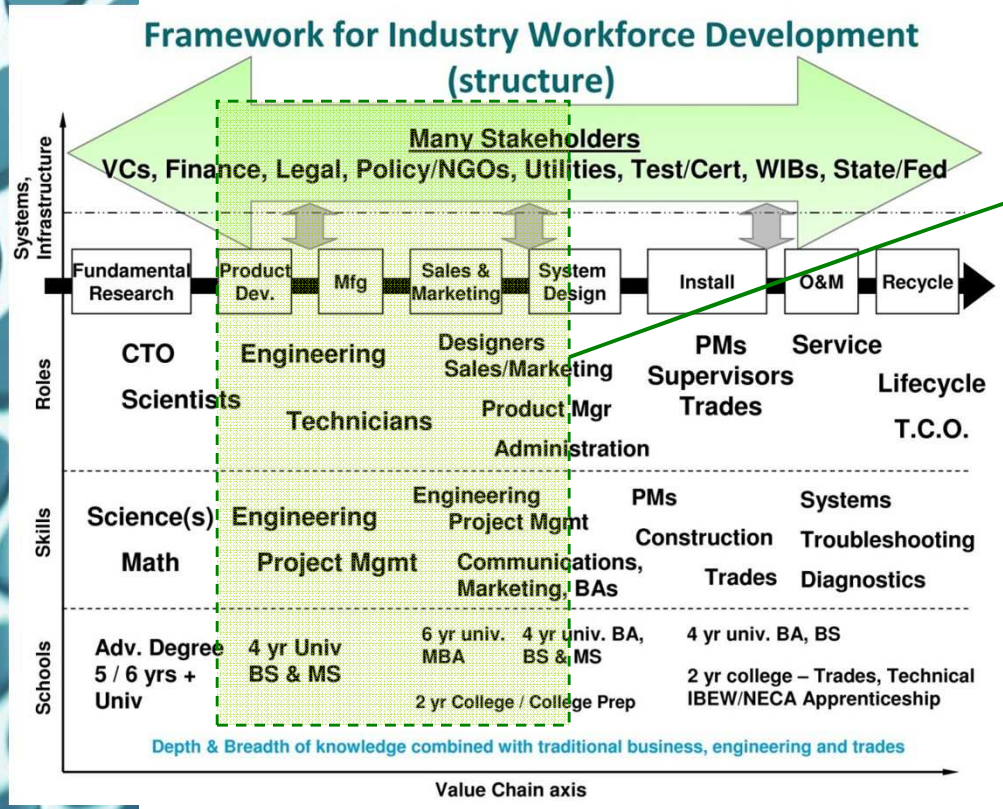
- Instructors are Solar Industry Professionals.
- Customized course to begin week of January 24th, 2011.
- 8-week course with instruction 2 days a week and potentially some evenings.
- Short course in AutoCAD available, if needed, to run concurrently
- Training facility in San Jose (near Airport). AutoCAD Lab at DeAnza College in Cupertino.
- **Official class schedule to be posted early January 2011.**

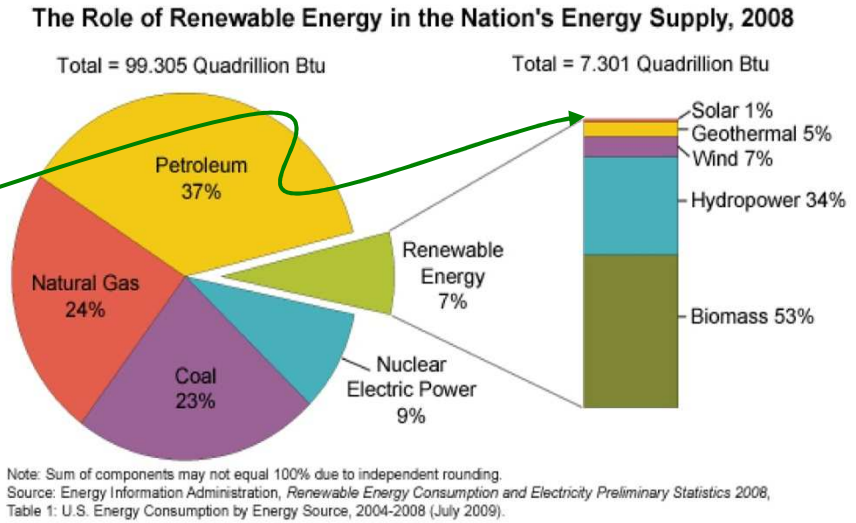
Higher Education Connection:
SWIC: Supports the Complete Value Chain



SolarTech
An initiative of Silicon Valley Leadership Group

University Connection: Sustainability and Growing the Economic Pie

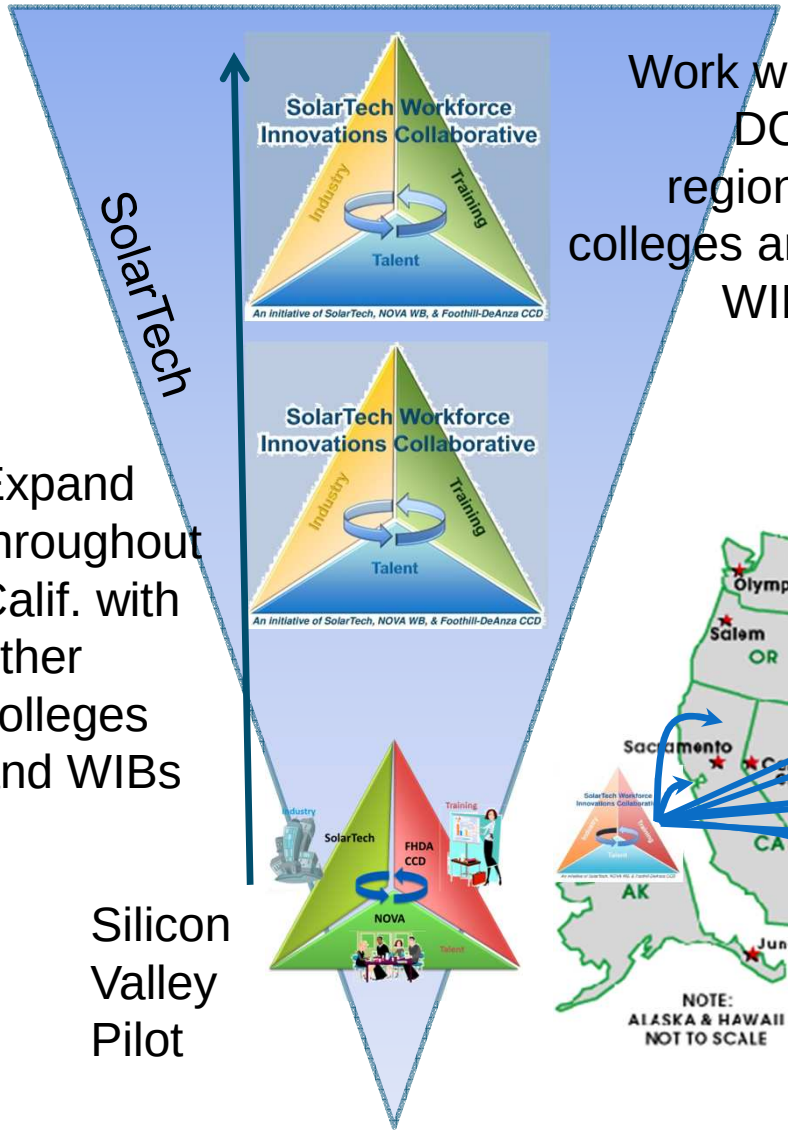




SolarTech
An initiative of Silicon Valley Leadership Group

San José State University

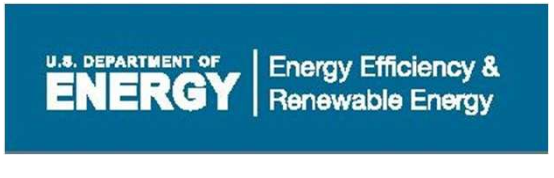
Next Steps: 2011 into 2012

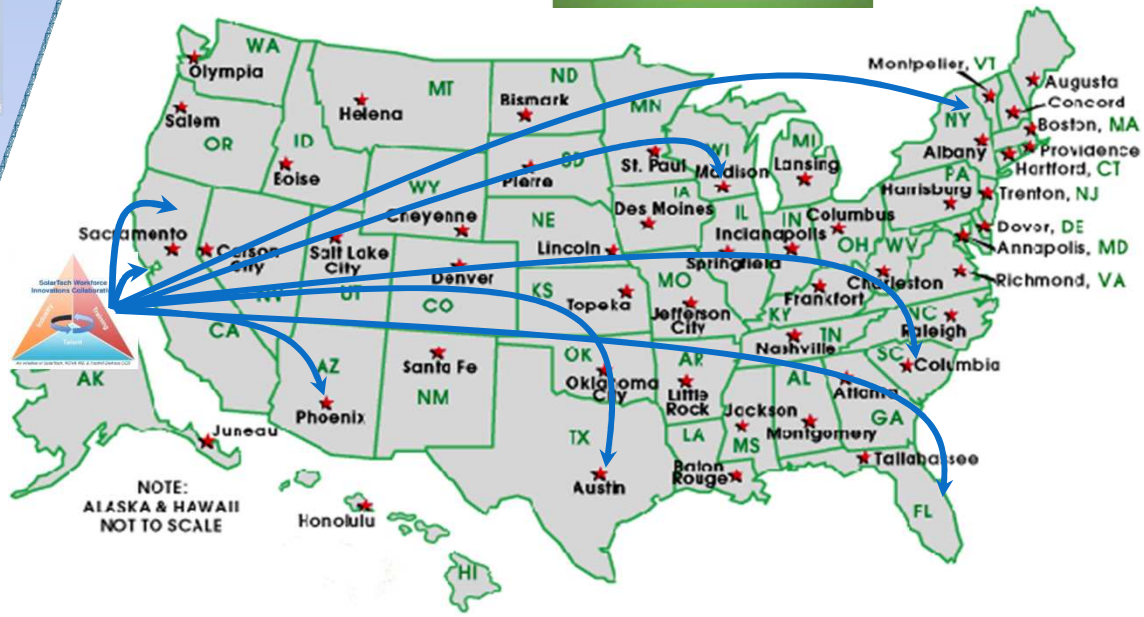


Work with DOE regions, colleges and WIBs

Expand throughout Calif. with other colleges and WIBs

Silicon Valley Pilot





Upcoming Symposium

How can you get past the hype and find the truth about cleantech industry labor/market data from primary sources?

….from the SWIC Renewable Energy Workforce Forums!
Join SolarTech and the SWIC team this February 1 for…

Integrated Energy Career Pathways

An Insiders Look into Careers and in Integrated Supply and Demand Side Energy Management

Hosted by Pacific Gas and Electric Company –

San Ramon Conference Center (3301 Crow Canyon Road, San Ramon, CA 94583)

Tuesday, February 1, 2010 from 8:30 am to 3:30 pm

SolarTech
An initiative of Silicon Valley Leadership Group

Pacific Gas and Electric Company

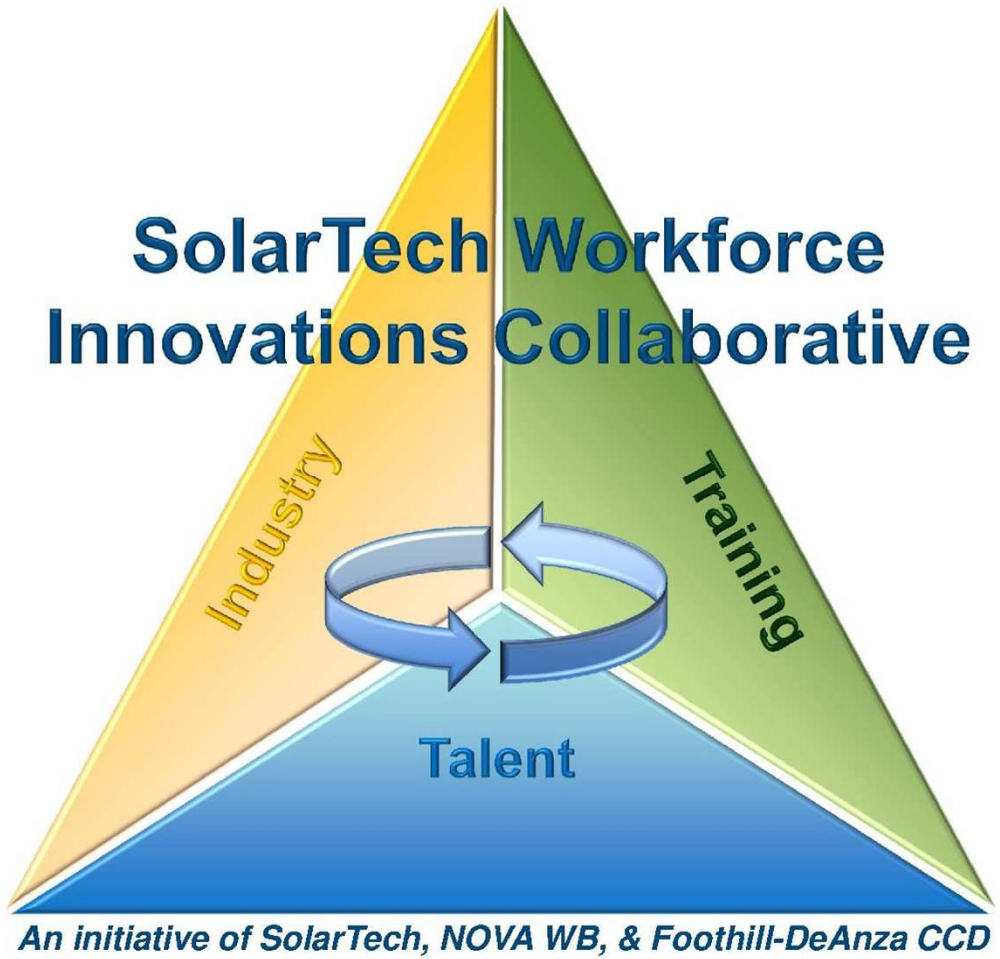
FOOTHILL-DE ANZA
Community College District

nova WORKFORCE DEVELOPMENT

SolarTech Workforce Innovations Collaborative
Industry
Training
Talent
An initiative of SolarTech, NOVA WB, & Foothill-DeAnza CCD

SolarTech Workforce Innovations Collaborative:

An Experiment in Process



SolarTech
An initiative of Silicon Valley Leadership Group